

United States Patent and Trademark Office



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,186	08/21/2003	David A. Busche	20703-1	7059
30482 7590 10/09/2007 BEMIS COMPANY, INC.		EXAMINER		
2200 BADGER AVENUE			AUGHENBAUGH, WALTER	
OSHKOSH, WI 54904			ART UNIT	PAPER NUMBER
			1794	
			MAIL DATE	DELIVERY MODE
•			10/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

•	Application No.	Applicant(s)				
·	10/645,186	BUSCHE ET AL.				
Office Action Summary	Examiner	Art Unit				
·	Walter B. Aughenbaugh	1772				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory eriod will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).						
Status						
1) Responsive to communication(s) filed on 19 Ju	Responsive to communication(s) filed on 19 July 2007.					
·—	,					
	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.						
Disposition of Claims						
 4) Claim(s) 1-36,38-43 and 50-69 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) Claim(s) is/are allowed. 6) Claim(s) 1-36,38-43 and 50-69 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or election requirement. 						
Application Papers						
9) The specification is objected to by the Examiner 10) The drawing(s) filed on is/are: a) access applicant may not request that any objection to the objected to by the Examiner Replacement drawing sheet(s) including the correction access and the correction is objected to by the Examiner 11) The oath or declaration is objected to by the Examiner	epted or b) objected to by the Edrawing(s) be held in abeyance. See on is required if the drawing(s) is obj	ected to. See 37 CFR 1.121(d).				
Priority under 35 U.S.C. § 119						
 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 						
Attachment(s)						
1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413)						
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 9/30/07. 	Paper No(s)/Mail Da 5) Notice of Informal Pa 6) Other:	te				

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 19, 2007 (Amdt. B) has been entered.

Acknowledgement of Applicant's Amendments

- 2. The amendments made in claims 1, 38-40, 43 and 50 in the Amendment filed July 19, 2007 (Amdt. B) have been received and considered by Examiner.
- 3. Applicant's cancellation of claim 37 in Amdt. B has been acknowledged by Examiner.

Claim Rejections - 35 USC § 103

- 4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
- 5. Claims 1-36, 38-43 and 50-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Donovan et al. in view of Ramesh et al.

In regard to claims 1, 43 and 50, Donovan et al. teach an individual, end-sealed packaging bag (col. 1, lines 16-23, col. 2, lines 4-9, col. 5, lines 50-58 and Fig. 1 and 2) formed from a polymeric film (col. 3, line 65-col. 4, line 11) where the sheet has a first side, an opposing second side, an inner surface and an outer surface (Fig. 1 and 2) where the bag comprises a first seal (item 13 in Fig. 1 and item 25 in Fig. 2, col. 5, lines 50-55 and 60-64) connecting the first side to the second side and defining a tube member (col. 2, lines 6-9 and Fig. 1A, 2A, 3 and 4)

having a first bag wall, a second bag wall, opposing first and second bag edges, an end and an open mouth opposite the end (since end seal 15 in Fig. 1 and end seal 26 in Fig. 2 are easily opened as taught by Ramesh et al. at col. 3, lines 8-9, the embodiment where the bag mouth is opened is taught by Ramesh et al.) and a second seal (end seal 16 in Fig. 1 and end seal 27 in Fig. 2) provided through the first and second bag walls where the second seal extends laterally across the width of both the first and second bag walls at a position proximate the end, whereby an empty product receiving chamber is defined by the first bag wall, the second bag wall, the second seal and the open mouth (col. 8, lines 57-59 and 64-66), wherein at least one of the first and second seals comprises a peelable seal (col. 6, lines 16-28). Donovan et al. teach that the film is preferably oriented polypropylene (col. 3, lines 65-66) and that the bag is used to store food products (col. 1, lines 8-12 and 24-28).

In further regard to claims 43 and 50, Donovan et al. teach that the first side and second side are bonded along the lengths thereof (Fig. 1 and 2) and that the first seal is a lap seal (item 13, Fig. 1) and a peelable seal (col. 8, lines 47-52).

Donovan et al. fail to teach that the polymeric film is heat shrinkable and fail to teach that the film has the claimed shrinkage value.

Ramesh et al., however, disclose a film comprising a biaxially oriented polypropylene film that is heat-shrinkable (col. 19, lines 21-24, col. 17, lines 13-24 and col. 8, line 14). Ramesh et al. teach that processed meat products such as poultry and ham are often packaged in heat-shrinkable plastic tubing known as casings (col. 1, lines 25-27). Therefore, one of ordinary skill in the art would have recognized to have used the heat-shrinkable biaxially oriented polypropylene film of Ramesh et al. as the oriented polypropylene film of Donovan et al. since

heat-shrinkable biaxially oriented polypropylene films are well known oriented polypropylene films for use in packaging meat products such as poultry and ham as taught by Ramesh et al.

Ramesh et al., furthermore, teach that the biaxially oriented (equivalently, biaxially stretched) tubular film has a shrinkage value in one or both directions of about 10-50%, and more preferably, about 15-35% at 185°F (85°C) (col. 8, lines 7-14). Therefore, one of ordinary skill in the art would have recognized to have selected a biaxially oriented polypropylene film that has a shrinkage value of about 15-35% at 185°F (85°C) for use as the biaxially oriented polypropylene film of the bag taught by Donovan et al. and Ramesh et al. since a biaxially oriented polypropylene film having a shrinkage value of from 15 to 35% is a well known film for use in food casings as taught by Ramesh et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the heat-shrinkable biaxially oriented polypropylene film of Ramesh et al. as the oriented polypropylene film of Donovan et al. since heat-shrinkable biaxially oriented polypropylene films are well known oriented polypropylene films for use in food packaging as taught by Ramesh et al. and to have selected a biaxially oriented polypropylene film that has a shrinkage value of about 15-35% at 185°F (85°C) for use as the biaxially oriented polypropylene film of the bag taught by Donovan et al. and Ramesh et al. since a biaxially oriented polypropylene film having a shrinkage value of from 15 to 35% is a well known film for use in food casings as taught by Ramesh et al.

In regard to claim 2, Donovan et al. teach that the first seal is a lap (item 13) or fin (item 25) seal (col. 8, lines 47-65) and that the first seal is peelable (col. 6, lines 16-28).

In regard to claims 3 and 8, Donovan et al. fail to teach that the first seal comprises a butt-seal. Ramesh et al., however, disclose that the casing comprises a butt seal where the butt seal includes a butt seal tape (col. 5, lines 32-40), and since Ramesh et al. disclose that the butt seal tape is heat shrinkable, the butt seal tape necessarily comprises two heat seals that join the two borders of the tape to the two respective sides of the film. Therefore, one of ordinary skill in the art would have recognized to have used the butt seal structure of Ramesh et al. to form the first seal of Donovan et al. since the butt seal is a well known seal for use in oriented polypropylene films for use in food packaging as taught by Ramesh et al.

In regard to claims 4 and 6, Donovan et al. teach that the first and second seals are peelable (col. 6, lines 16-28), so the heat-shrinkable film taught by Donovan et al. and Ramesh et al. includes a peelable system.

In regard to claim 5, since Donovan et al. teach that the first and second seals are peelable (col. 6, lines 16-28), one of ordinary skill in the art would have recognized to have used a peelable system as the butt-seal of the bag taught by Donovan et al. and Ramesh et al. since the butt seal is a well known seal for use in oriented polypropylene films for use in food packaging as taught by Ramesh et al.

In regard to claim 7, the end of any piece of tape is a pull flap, so the tape of the bag taught by Donovan et al. and Ramesh et al. includes a pull flap. In regard to claim 9, Ramesh et al. teach that one of the sides extend outwardly to form a pull flap (see Fig. 1).

In regard to claim 10, Donovan et al. teach that the first seal includes the claimed seal strip (strips 13 and 25, col. 8, lines 47-65), where heat seals join the respective surfaces of the strip to the respective side of the film (col. 4, lines 40-44).

In regard to claims 11 and 12, Donovan et al. teach that the first and second heat seals are peelable seals (col. 6, lines 20-27), and therefore, in regard to claims 13 and 14, the strip film and heat-shrinkable film taught by Donovan et al. and Ramesh et al. include a peelable system. In regard to claim 15, since the lap seal, item 13, overlaps the package (Fig. 1), the strip film includes a pull flap.

In regard to claims 16 and 51, Donovan et al. teach that the film comprises a multilayer barrier film (col. 6, lines 16-28).

In regard to claims 17 and 52, Donovan et al. teach that the multilayer barrier film comprises an inner heat sealing layer (item 63 or item 67), a barrier layer (item 68), a core layer (item 65), a tie layer (item 67 or item 63) and an outer heat sealing layer (item 61) (Fig. 6 and col. 11, lines 18-36 and 56-66). Note that "adjacent" does not require absolute contact, but requires relatively close position. *Ex parte Hadsel* (PO BdApp) 109 USPQ 509.

In regard to claims 18-20, Donovan et al. and Ramesh et al. fail to teach the claimed seal strength values. However, since Donovan et al. teach that the seals are peelable (col.6, lines 16-28), one of ordinary skill in the art would have recognized to have selected materials for the seals such that the seal strengths of the seals are less than the claimed maximum values in order to render the seals sufficiently peelable as taught by Donovan et al.

In regard to claims 21 and 67, while Donovan et al. and Ramesh et al. fail to explicitly teach that the outer sealing layer (item 61) forms the outer surface of the bag, one of ordinary skill in the art would have recognized to have situated the film such that the outer sealing layer (item 61) forms the outer surface of the bag depending on the desired location of the seal.

In regard to claims 22 and 68, the tie layer, item 67, of Donovan et al. is permanently bonded to the core layer, item 65, and peelably bonded to the outer heat sealing layer, item 61, via the core layer and the inner heat sealing layer, item 63 (Fig. 6 and col. 11, lines 18-36 and 56-66).

In regard to claims 23 and 69, the tie layer, item 63, of Donovan et al. is permanently bonded to the outer heat sealing layer, item 61, and peelably bonded to the core layer, item 65 (Fig. 6 and col. 11, lines 18-30).

In regard to claims 24 and 53, Donovan et al. teach that the tie layer comprises a blend of polybutylene and at least one other constituent when item 63 is the tie layer (col. 11, lines 26-31 and col. 12, lines 5-15).

In regard to claim 25, at least one other constituent of Donovan et al. is a polyethylene (col. 11, lines 26-31).

In regard to claims 26 and 55, Donovan et al. teach that the outer heat sealing layer comprises polyethylene (col. 11, lines 21-26).

In regard to claims 27, 31, 56 and 60, Donovan et al. fail to teach that the core layer (item 65) comprises a blend of polyethylene and ethylene-vinyl acetate copolymer. Ramesh et al., however, disclose that a blend of a polyethylene and ethylene-vinyl acetate copolymer is a preferable material for use as a core layer (col. 22, lines 50-51 and col. 22, line 66-col. 23, line 2). Therefore, one of ordinary skill in the art would have recognized to have used the blend of a polyethylene and ethylene-vinyl acetate copolymer of Ramesh et al. as the material of the core layer of Donovan et al. since a blend of a polyethylene and ethylene-vinyl acetate copolymer is a preferable material for use as a core layer as taught by Ramesh et al. In further regard to claim

31, Donovan et al. and Ramesh et al. teach the bag as discussed above in regard to claims 24, 26, 29 and 30. In further regard to claim 60, Donovan et al. and Ramesh et al. teach the bag as discussed above in regard to claims 53, 55, 58 and 59.

In regard to claims 28, 29, 57 and 58, Donovan et al. teach that the barrier layer is selected from any four of the compounds claimed in claims 28 and 57 (col. 4, lines 2-10). In further regard to claims 29 and 58, Donovan et al. teach that the barrier layer is of polyvinylidene chloride copolymer (col. 4, lines 2-10).

In regard to claims 30 and 59, Donovan et al. teach that the inner heat sealing layer comprises a blend of polyethylene and ethylene-vinyl acetate copolymer (col. 13, lines 39-45 and col. 17, lines 25-29).

In regard to claims 32 and 61, Donovan et al. teach that the other constituent is polyethylene (col. 12, lines 5-12). While Donovan et al. teach that polyvinylidene chloride is a suitable barrier resin, Donovan et al. fail to explicitly teach that the barrier layer comprises the particular claimed polyvinylidene chloride. However, since Donovan et al. teach that polyvinylidene chloride is a suitable barrier resin, one of ordinary skill in the art would have recognized to have used a blend of any polyvinylidene chloride resin as the barrier resin of the bag taught by Donovan et al. and Ramesh et al.

In regard to claims 33 and 62, Donovan et al. and Ramesh et al. teach the bag as discussed in this Office Action in regard to claims 1 and 50. Furthermore, Donovan et al. teach that the inner heat sealing layer constitutes 35% of the total film thickness if item 63 of Donovan et al. is the inner heat sealing layer, that the barrier layer, item 68, constitutes 3% of the total film thickness, that the core layer, item 65, constitutes 47% of the total film thickness, that the tie

layer constitutes 10% of the total film thickness if item 67 of Donovan et al. is the tie layer, and that the outer heat sealing layer, item 61, constitutes 5% of the total film thickness (col. 11, lines 21-42 and 56-64). Therefore, Donovan et al. and Ramesh et al. fail to teach that the core layer, item 65, constitutes less than 28% of the total film thickness. However, Donovan et al. teach that the core layer, item 65, is an oriented polypropylene layer (col. 11, lines 31-35 and 62-64) and that the multilayer film can provide simple or enhanced barrier properties for maintenance of package contents (col. 9, lines 55-64) and that an oriented polypropylene layer is a high barrier layer (col. 9, lines 65-67). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have varied the thickness of the oriented polypropylene barrier layer of the bag taught by Donovan et al. and Ramesh et al. in order to achieve the desired degree of barrier properties for maintenance of package contents depending on the desired end results and intended use of the package as taught by Donovan et al.

In regard to claims 34 and 63, Donovan et al. teach that the second seal is nonpeelable (col. 6, lines 16-28).

In regard to claims 64-66, Donovan et al. and Ramesh et al. fail to teach the claimed seal strength values. However, since the seals of Donovan et al. are seals, (col. 6, lines 16-28), one of ordinary skill in the art would have recognized to have selected materials for the seals such that the seal strengths of the seals are greater than the claimed minimum values in order to render the seals sufficiently strong as taught by Donovan et al.

In regard to claims 35 and 36, Donovan et al. fail to teach that the film is has a thickness that falls within the claimed thickness ranges. Ramesh et al., however, disclose that the film has a thickness of about 1 to 8 mils, and more preferably, 2 to 4 mils (col. 18, lines 63-67). Therefore,

one of ordinary skill in the art would have recognized to have formed the film taught by

Donovan et al. and Ramesh et al. such that it has a thickness of 1 to 8 mils, and more preferably,

2 to 4 mils since thickness values that fall within these thickness ranges are well known values

for the thickness of a food casing as taught by Ramesh et al.

In regard to claims 38-40, Ramesh et al. teach that the film has the claimed shrinkage values in both the machine and transverse directions (col. 8, lines 7-14).

In regard to claim 41, Donovan et al. teach that the first seal comprises a lap seal (col. 8, lines 47-59) and that the inner heat sealing layer forms the inside surface of the bag (Fig. 6).

In regard to claim 42, Donovan et al. teach that the first seal comprises a lap seal (col. 8, lines 47-59) and that the first side includes an unsealed portion (the portion of the film that forms the border of tunnel 37) extending outwardly beyond the first seal (col. 9, lines 4-8 and Fig. 3). In regard to claim 54, Donovan et al. and Ramesh et al. teach the bag as discussed above in this Office Action in regard to claim 53. At least one other constituent of Donovan et al. is a polyethylene (col. 11, lines 26-31).

Response to Arguments

6. Applicant's arguments regarding the 35 U.S.C. 103 rejection presented on pages 10-18 of Amdt. B have been received and considered by Examiner.

The Office Action has not stated that the oriented polypropylenes of Donovan et al. and Ramesh et al. are the exact same material. Applicant's arguments suggest that the only way the Donovan et al. and Ramesh et al. would be combined by one of ordinary skill in the art would be if the Donovan et al. and Ramesh et al. patents taught are the exact same oriented polypropylene.

Page 11

To clarify the portion of the Office Action for which Applicant requests "additional explanation and clarification" on page 12 of Amdt. B, this portion of the Office Action essentially says that the film could be annealed at a later portion in time during the process of forming the film. Annealing is heating the film, then cooling it down. Once the film is heated (col. 9, lines 44-52) and subsequently cooled down, the film is an annealed film. Applicant's statement that the films of Ramesh "are, by definition, unannealed" is not supported.

Applicant has not shown that the films disclosed in Donovan would have a z-direction tear if the oriented polypropylene film of Ramesh were used in place of the oriented polypropylene film of Donovan.

Applicant argues that Donovan teaches away from heat shrinkable films on pages 14-15 of Amdt. B, but the block quote from Donovan that Applicant has provided at the bottom of page 14 of Amdt. B does not teach away from heat shrinkable films: rather, it says that sealing capacity should be provided at as low a temperature as possible so that there is little or no film shrinkage: note that this also suggests that if the temperature is raised above the aforementioned temperature at which there is little or no film shrinkage, the film does shrink.

Applicant requests "additional explanation and clarification" for a portion of the Office Action on page 15 of Amdt. B: the packages are "processed on high speed form/fill/seal machinery", as Applicant acknowledges on page 15 of Amdt. B. Therefore, the packages are sealed during this processing. As stated above, the block quote from Donovan that Applicant has provided at the bottom of page 14 of Amdt. B does not teach away from heat shrinkable films: rather, it says that sealing capacity should be provided at as low a temperature as possible so that there is little or no film shrinkage: note that this also suggests that if the temperature is raised

above the aforementioned temperature at which there is little or no film shrinkage, the film does shrink.

Applicant's parenthetical statement provides further explanation as to why the block quote from Donovan that Applicant has provided at the bottom of page 14 of Amdt. B does not teach away from heat shrinkable films. Donovan desires to keep the films as cool as possible so that there is no shrinking, and as follows, the films of Donovan are shrinkable.

Examples 1 and 5 have not been disregarded in consideration of the teachings of Donovan. The block quote from Donovan that Applicant has provided at the bottom of page 14 of Amdt. B does not teach away from heat shrinkable films. Donovan desires to keep the films as cool as possible so that there is no shrinking, and as follows, the films of Donovan are shrinkable if heated sufficiently.

Donovan does not teach away from heat shrinkable films: the block quote from Donovan that Applicant has provided at the bottom of page 14 of Amdt. B does not teach away from heat shrinkable films: rather, it says that sealing capacity should be provided at as low a temperature as possible so that there is little or no film shrinkage: note that this also suggests that if the temperature is raised above the aforementioned temperature at which there is little or no film shrinkage, the film does shrink. Donovan desires to keep the films as cool as possible so that there is no shrinking, and as follows, the films of Donovan are shrinkable if heated sufficiently.

Response to Declaration under 37 C.F.R. 1.132 filed July 19, 2007

7. The Declaration under 37 C.F.R. 1.132 filed July 19, 2007 has been fully considered but is not persuasive.

Any suggestion in Donovan that the film "is not intended to shrink" is not a teaching that the film does not shrink if it were heated enough such that it would shrink.

The block quote from Donovan that Applicant has provided at the bottom of page 14 of Amdt. B (which is apparently where Declarant finds support for the argument that the film "is not intended to shrink") does not teach away from heat shrinkable films: rather, it says that sealing capacity should be provided at as low a temperature as possible so that there is little or no film shrinkage: note that this also suggests that if the temperature is raised above the aforementioned temperature at which there is little or no film shrinkage, the film does shrink.

Declarant's blanket statement that all Exxon Mobile films are "not heat-shrinkable" and are "designed away from including heat-shrink properties" does not have any support in Donovan, and does not specifically address the teachings of the Donovan patent. The block quote from Donovan that Applicant has provided at the bottom of page 14 of Amdt. B does not teach away from heat shrinkable films: rather, it says that sealing capacity should be provided at as low a temperature as possible so that there is little or no film shrinkage: note that this also suggests that if the temperature is raised above the aforementioned temperature at which there is little or no film shrinkage, the film does shrink. Donovan desires to keep the films as cool as possible so that there is no shrinking, and as follows, the films of Donovan are shrinkable if heated sufficiently.

Declarant's statement "Due to the designing away from heat-shrink properties" does not have any support in Donovan, and does not specifically address the teachings of the Donovan patent. See previous literal paragraph. Therefore, the statement "Exxon Mobile packaging films are also known to have an opening system that could not withstand... properties" also does not

Application/Control Number: 10/645,186

Art Unit: 1772

have any support in Donovan, and does not specifically address the teachings of the Donovan patent.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter B. Aughenbaugh whose telephone number is (571) 272-1488. While the examiner sets his work schedule under the Increased Flexitime Policy, he can normally be reached on Monday-Friday from 8:45am to 5:15pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Walter B. Aughenbaugh

10/01/07

10/01/15

RENA DYE

Page 14